GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

STARRED QUESTION NO:350
ANSWERED ON:18.04.2000
EARTHQUAKE PRONE AREAS
BIJOY KRISHNA HANDIQUE;CHANDRAKANT BHAURAO KHAIRE

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether the Government have identified the earthquake prone areas in the country;

(b) if so, the details thereof, State-wise;

(c) whether the North Eastern region is frequently facing low intensity earthquakes;

(d) if so, the facts in this regard;

(e) the States in the country where severe seismic tremors were felt recently;

(f) whether any effective mechanism to forewarn the people in this regard exists in the country; (g) if so, the details thereof; (h) if not, the reasons therefor; and (i) the steps proposed to be taken by the Government in this direction?

Answer

MINISTER OF SCIENCE AND TECHNOLOGY

DR. MURLI MANOHAR JOSHI

(a) to
(i): A statement is laid on the Table of the House.
STATEMENT AS REFERRED IN REPLY TO PARTS (a) TO
(i) OF THE LOKSABHASTARREDQUESTION NO. 350FORANSWERON 18.04.2000 REGARDING EARTHQUAKE PRON AREAS.

(a) Yes, Sir.

(b) Based on the seismic data and different geological and geophysical parameters, the Bureau of Indian Standards has divided the country into five seismic zones. Zone V is the most seismically active region and zone I is the least. Broadly, Zone V comprises entire North-Eastern India,parts of Jammu and Kashmir,Himachal Pradesh, West Uttar Pradesh Hills,Rann of Kutch in Gujarat, North Bihar and Andaman & Nicobar Islands. Zone IVcovers Sikkim, Delhi, remaining parts of Jammu and Kashmir, Himachal Pradesh, Bihar, Northern parts of Uttar Pradesh and West Bengal, parts of Gujaratand small portion of Maharashtra near the West Coast. Zone III comprises Kerala, Goa, Lakshdweep Islands, remaining parts ofUttar Pradesh and West Bengal, parts of Punjab, Rajasthan, Maharashtra, Madhya Pradesh, Orissa, Andhra Pradesh and Karnataka. Zones I & II cover the remaining parts of the country.

(c) Yes, Sir. North-Eastern region is prone to frequent earthquake activity.

(d) Whole of North-Eastern region falls under Zone V.Some of the major earthquakes above magnitude 7.0 which occurred in this region during last hundred years are: Assam earthquakes on 8th July 1918, 2nd July 1930, 23rd October 1943; Arunachal Pradesh-China border on 15th August 1950 and Manipur-Myanmar border on 6th August 1988.

(e) During the last 10 years, severe earthquakes were felt in Uttar Pradesh, Maharashtra and Madhya Pradesh. The detailsare as follows:

Date	Location	Magnitude
October 20, 1991	Uttarkashi (U.P.)	6.6
September 30, 1993	Latur-Osmanabad(Maharashtra)	6.3
May 22, 1997	Jabalpur (M.P.)	6.0
March 29, 1999	Chamoli (U.P.)	6.8

(f) No, Sir.

(g) Does not arise.

(h) There is no scientific technique anywhere in the world to forecast/forewarn the people about the occurrence of an earthquake with reasonable degree of accuracy with regard to space, time and magnitude. Monitoring of earthquake and quick dissemination of earthquake parameters to relief authorities for post-earthquake mitigation are possible and this is being done in the country.

(i) Research and scientific studies are being promoted by Department of Science and Technology to understand the underlying seismogenic process.